

Abstract

The invention relates to a process for preparing a supported catalyst, in particular for the polymerization and/or copolymerization of olefins, which comprises:

- 5 a) preparing a hydrogel;
 b) milling the hydrogel to give a finely particulate hydrogel;
 c) producing a slurry based on the finely particulate hydrogel;
 d) drying the slurry comprising the finely particulate hydrogel to give the support for
 catalysts;
10 e) producing the supported catalyst by applying at least one transition metal and/or at
 least one transition metal compound to the support for catalysts and, if appropriate,
 activating the applied metal and/or compound,

wherein a finely particulate hydrogel in which

- 15 - at least 5% by volume of the particles, based on the total volume of the
 particles, have a particle size in the range from $> 0 \mu\text{m}$ to $\leq 3 \mu\text{m}$; and/or
 - at least 40% by volume of the particles, based on the total volume of the
 particles, have a particle size in the range from $> 0 \mu\text{m}$ to $\leq 12 \mu\text{m}$, and/or
 - at least 75% by volume of the particles, based on the total volume of the
 particles, have a particle size in the range from $> 0 \mu\text{m}$ to $\leq 35 \mu\text{m}$,

- 20 is produced in step b) and a support which can be prepared as set forth in steps a) to d) is used to
 produce catalysts in step e).